

$$\text{fin } \mathbb{k} \in \mathbb{H}\Delta^0 \Rightarrow \mathbb{H} \leftarrow \mathbb{H} \times \mathbb{H}$$

$$\mathbb{k} \xrightarrow[\text{)}]{\text{eval}} \mathbb{F} \triangleleft \mathbb{H} \triangleleft \mathbb{F} \xrightarrow{\mathbb{H} \Rightarrow \mathbb{F}} \mathbb{F} = \mathbb{F} \triangleleft \overbrace{\mathbb{H} \triangleleft \mathbb{F}} \mathbb{E}$$

$$\bigwedge_{\mathbb{k}} \mathbb{k}() \in \mathbb{F} \triangleleft \overbrace{\mathbb{H} \triangleleft \mathbb{F}} \mathbb{E}$$

$$\mathbb{F} \xleftarrow[\mathbb{E} \text{ lin}]{\mathbb{k}()} \mathbb{H} \triangleleft \mathbb{F}$$

$$\mathbb{k}() \gamma = \mathbb{k} \gamma$$

$$\underbrace{\gamma + \mathfrak{r}}^{\mathbb{k}()} = \mathbb{k} \overbrace{\gamma + \mathfrak{r}} = \mathbb{k} \gamma + \mathbb{k} \mathfrak{r} = \gamma^{\mathbb{k}()} + \mathfrak{r}^{\mathbb{k}()}$$

$$\underline{\alpha} \mathbb{k}() = \mathbb{k} \overbrace{\alpha \gamma} = \alpha \mathbb{k} \gamma = \alpha \gamma^{\mathbb{k}()}$$

$$\mathbb{k} \xrightarrow[\mathbb{E}]{\mathbb{G}|\mathbb{F} \int} \mathbb{F} \triangleleft \mathbb{H} \triangleleft \mathbb{F} \xrightarrow{\mathbb{H} \Rightarrow \mathbb{F}} \mathbb{F} = \mathbb{F} \triangleleft \overbrace{\mathbb{H} \triangleleft \mathbb{F}} \mathbb{E}$$

$$\sigma \in \mathbb{G}|\mathbb{F} \int_{\mathbb{E}} \Rightarrow \sigma^{\mathbb{k}()} \gamma = \sigma^{\mathbb{k}} \gamma_{\mathbb{H} \text{ cov}} = \sigma \mathbb{k} \gamma = \sigma \times \gamma = \sigma^{\mathbb{k}()} \gamma = \underline{\sigma \times \mathbb{k}()} \gamma$$

$$\mathfrak{K} \xrightarrow[\text{inj}]{\text{eval}} \mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \xrightarrow{\mathbb{H} \Rightarrow \mathbb{F}} \mathbb{F} = \mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \mathbb{E}$$

$$\hat{\mathfrak{K}} = \frac{\mathbb{k}^{\circ}(\cdot)}{\mathbb{k} \in \mathfrak{K}} \subset \mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \mathbb{E}$$

$$\hat{\mathfrak{K}} \leftarrow \mathbb{G}[\mathbb{F}] \int_{\mathbb{E}} \times \hat{\mathfrak{K}} \Rightarrow \hat{\mathfrak{K}} \in \mathbb{G}[\mathbb{F}] \int_{\mathbb{E}} \overset{\circ}{\Delta}$$

$$\mathfrak{K} \xrightarrow[\mathbb{G}[\mathbb{F}] \int_{\mathbb{E}}]{\text{eval}} \hat{\mathfrak{K}} \Rightarrow \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \xrightarrow[\mathbb{E} \text{ hom}]{\text{eval}^*} \overline{\hat{\mathfrak{K}} \triangleleft_{\mathbb{H}} \mathbb{F}}$$

$$\text{eval}^* \text{ inj} : \begin{cases} \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \ni \dot{\gamma} \\ \circ \gamma = \circ \dot{\gamma} \end{cases} \Rightarrow \bigwedge_{\mathbb{k}} \mathbb{k} \gamma = \mathbb{k} \circ \gamma = \mathbb{k} \circ \dot{\gamma} = \mathbb{k} \dot{\gamma} \Rightarrow \gamma = \dot{\gamma}$$

$$\#\mathfrak{K} = \dim_{\mathbb{E}} \mathbb{G}[\mathbb{F}] \int_{\mathbb{E}} \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \stackrel{\text{inj}}{\leq} \dim_{\mathbb{E}} \mathbb{G}[\mathbb{F}] \int_{\mathbb{E}} \overline{\hat{\mathfrak{K}} \triangleleft_{\mathbb{H}} \mathbb{F}} = \#\hat{\mathfrak{K}} \leq \#\mathfrak{K} \Rightarrow \#\mathfrak{K} = \#\hat{\mathfrak{K}}$$

$$\mathfrak{K} \xrightarrow[\text{bij}]{\text{eval}} \mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \xrightarrow{\mathbb{H} \Rightarrow \mathbb{F}} \mathbb{F} = \mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \mathbb{E}$$

$$\#\mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \mathbb{E} \stackrel{8}{=} (-1) \dim_{\mathbb{E}} \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \stackrel{*}{=} \#\mathfrak{K} = \#\hat{\mathfrak{K}} \Rightarrow \hat{\mathfrak{K}} = \mathbb{F} \nabla \overline{\mathbb{F} \triangleleft_{\mathbb{H}} \mathbb{F}} \mathbb{E}$$